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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,809	11/03/2003	Mitsuru Arai	03665/LH	4459
1933	7590	11/21/2006	EXAMINER	
FRISHAUF, HOLTZ, GOODMAN & CHICK, PC 220 Fifth Avenue 16TH Floor NEW YORK, NY 10001-7708			WEINSTEIN, LEONARD J	
			ART UNIT	PAPER NUMBER
			3746	

DATE MAILED: 11/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/699,809

Applicant(s)

ARAI ET AL.

Examiner

Leonard J. Weinstein

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date 11/03/03.
- 4) ☐ Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

1. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are: "place product," "positioned in accordance the positioning," and "operated following to a control valve."

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 1-4, a "control valve" is claimed but no limitations defining structure or components are included. Control valve is a broad reference to a widely used apparatus, having many variations, and does not limit nor clearly define the claimed invention.

4. The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors. In claims 1 and 3-4, the term "following to" with reference to a control valve is indefinite and does not define a relationship between the claimed "servo piston" or the stroke of said piston.

5. The term "relatively close" in claim 4 is a relative term which renders the claim indefinite. The term "relatively close" is not defined by the claim, the specification does not

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provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The use of the cited term fails to clearly define whether the stroke of the piston occurs in close proximity to the claimed "positioning member," if the stated member has a range of motion similar to the piston, or if the movement of the piston and member are synchronous.

6. Claim 4 is further rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: the structural relationship between the servo piston, control valve and "throttle." The claim states that a control valve is within the claimed piston but then states that a throttle is formed between the two. A structural limitation cannot be ascertained, it is unclear how something can be formed between the valve and the piston if the valve is placed within the piston.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Kuroyanagi et al 4,652,215. Kuroyanagi et al. '215 discloses the invention substantially as claimed including: a volume control apparatus of a radial piston pump or a motor, Figures 1-2, comprising a control valve 65 positioned at a position in correspondence to a volume control pressure 70; and a servo piston 60 having said control valve built-in, being operated following to the control valve and pressing said cam ring 4 so as to position, via element 61, the cam ring. Further

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Kuroyanagi et al. '215 discloses a volume control apparatus of a radial piston pump or a motor wherein one set comprised of a control valve and servo piston, elements 60, 61, 64, and 65 of 68, and another set comprised of a control valve and a servo piston, elements 50, 51, 54, and 55 of 58, are provided at opposing positions with respect a cam ring.

Kuroyanagi et al. '215 discloses a servo piston 60 having a control valve built-in 65, pressing a positioning member 69 so as to position, element 61 of 69, the positioning member in correspondence to a control pressure, 70 via element 66.

Kuroyanagi et al. '215 discloses a positioning apparatus with a control valve 65 carrying out a stroke in correspondence to a control pressure, 70 via element 66, applied to a pressure receiving surface; a servo piston 60 having said control valve built-in 65 and pressing a positioning member 69 in correspondence to a driving pressure created by element 64 and from element 70 via 66. Further on lines 67-68 in column and continuing on lines 1-6 in column 5, Kuroyanagi et al '215 discloses a throttle that is formed between said control valve and said servo piston with elements 60, 65, and 66, and in such a manner that the driving pressure introduced to the servo piston 60 is increased and the control valve 65 carries out a stroke relatively close to the positioning member 69 with respect to the servo piston, and the driving pressure introduced to the servo piston is reduced and the servo piston 60 carries out a stroke relatively close to the positioning member 69 with respect to the control valve 65; and a spring 54 for generating a spring force opposing the control pressure and applied to the control valve 65; the control pressure, 70 via element 66, is applied to the control valve 65 to carry out a stroke of said valve, and the servo piston 60 follows the control valve on the basis of the driving pressure introduced via the throttle, as stated above; further disclosed by Kuroyanagi et al. '215, in lines 62-67 of column 4, is the control valve 65 of the claimed invention positioned at a

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position where the spring force, resultant of spring elements 54 and 64, and the control pressure are balanced, and the servo piston 60 is positioned in accordance with the position of the control valve 65.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure are included on form 892 enclosed herewith.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard J. Weinstein whose telephone number is 571-272-9961. The examiner can normally be reached on Monday - Thursday 7:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on 571-272-4828. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

**EHUD GARTENBERG  
SUPERVISORY PATENT EXAMINER**

LJW

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